

view of Gaucher (U.S. Patent No. 6,175,860). After careful review, Applicants must respectfully disagree.

Kackman relates to a wireless security system. The system appears to include a system controller and one or more battery-powered remote transmitters each coupled to a dedicated sensor. Kackman state:

When one of the sensors 809 is triggered by motion or other triggering event, its associated transmitter 803 transmits one or more message packets to the system controller 805, thereby signaling an alarm. Each message packet typically includes information about the nature of the alarm and the identity of the transmitter 803 and sensor 809 that generated the alarm. Depending on the information received, the system controller 805 instructs the central station 807 to take appropriate action in response, e.g., contacting the fire department.

(Kackman, column 1, lines 23-32). Kackman further explain:

One important consideration in any message packet transmission system is the reliability of the data link between the transmitters 803 and the system controller 805. Wireless transmission systems typically operate according to what is generally known as an "Aloha" protocol, i.e., transmitter 803 sends message packets but receives no feedback as to whether the message packets have been received by the systems controller. Since any given message packet may indicate an alarm condition, it is extremely important to ensure that message packets are reliably transmitted to the system controller 805. Therefore, a series of redundant message packets are typically sent to system controller 805.

(Kackman, column 1, lines 33-44). Sending redundant message packets, however, results in significantly greater energy usage. Kackman state:

However, because each individual message packet transmission sequence expends a certain amount of energy, sending redundant message packets results in significantly greater energy usage than sending only a single message packet. Consequently, a frequently-triggered transmitter unit, if configured to send a relatively large number of redundant message packets for each sensor trigger, would quickly expend all of its available energy and would stop working until its battery was recharged or replaced. The desirability of sending redundant message packets must be balanced against the interest of conserving energy.

(Kackman, column 2, line 62 through column 3, line 5). To reduce the energy usage, Kackman state:

The relative need for redundancy may be inferred from frequency of triggering events and, consequently, frequency of transmissions. In a series of transmissions close in time, e.g., a minute between transmissions, one can infer a relatively low probability of harm if the most recent transmission is not received by the system controller for two reasons. First, one of the immediately previous transmissions was likely received. Second, a series of frequent transmissions likely indicates that an authorized person is active in the area covered by the sensor. The longer the time period between transmissions, the greater the probability of harm from an unsuccessful transmission.

Therefore, the present invention is directed to selecting the number of message packets transmitted for each triggering event based on the period since the last transmission (or transmissions). For each period, the number of packets transmitter is selected to balance the need for at least one packet to be successfully received with the need to minimize the number of packets to conserve the battery. Selecting the specific time periods and number of packets for each period can be based on testing or historical data collected for the particular system.

(Kackman, column 3, lines 6-27). As can be seen, Kackman suggests one-way data transmission from the remote transmitters to the system controller. Kackman suggest that data transmission should be initiated in response to a triggering event detected at the remote units and, to increase the reliability of the transmission, there should be redundant data transmissions. To keep energy usage down, however, Kackman suggest setting the number of redundant packets that are transmitted based on the period between transmissions from each sensor. This, according to Kackman, may provide a balance between message transmission reliability and energy usage.

In paragraph 3 of the Office Action, the Examiner notes that Kackman does not suggest bi-directional communication. More particularly, the Examiner notes that Kackman does not suggest equipping the master with an RF transmitter to transmit a schedule for transmission to a

transceiver at the remotes. However, the Examiner states that Gaucher suggests bi-directional communications in which a master has a transmitter which transmits a schedule for transmission to a transceiver at a remote. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify Kackman to equip the master with a transmitter and the remotes with transceivers thereby allowing the master to transmit a schedule for remove transmission in order to eliminate the possibility of collisions.

It is well settled that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so.” (quoting *ACS Hosp. Systems, Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)). . . . The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

Kackman itself suggests that data transmission should occur in a uni-directional manner and in response to a triggering event detected at the remote units. This apparently conserves battery power at the remotes. In any event, data transmission that is initiated in response to a triggering event, as suggested by Kackman, would be inherently inconsistent with initiating data transmission according to a preset time schedule, as suggested by Gaucher.

Moreover, providing bi-directional communication between the master and the remote sensors would appear to render a primary feature of Kackman useless. As noted above, a primary feature of Kackman is to select the number of redundant message packets transmitted for

each triggering event of a remote unit based on the period since the last transmission (or transmissions) from that remote unit. For each period, the number of packets transmitted is selected to balance the need for at least one packet to be successfully received with the need to minimize the number of packets to conserve the battery. This key feature of Kackman would be rendered useless if a bi-directional communication link were provided.

In light of the above, it appears that Kackman teaches away from using a preset schedule for data transmission, as suggested by Gaucher. Furthermore, it appears that using a preset time schedule for data transmission would actually change the principle of operation of Kackman. As noted in MPEP 2143.01, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

With respect to the Examiner's statement that one would be motivated to combine Kackman with Gaucher to eliminate the possibility of data collision, it does not appear that one would "schedule" transmissions of the nature captured by Kackman. Clearly, transmissions suggested by Kackman occur in response to an unscheduled event that may trigger an alarm, such as detection of an intruder or smoke. It would appear to be unreasonable to "schedule" events at preset times - when such events would trigger an alarm such as a burglary or arson. In view of the foregoing, independent claims 1, 9, 10 and 12, and dependent claims 2, 3, 6, 7, and 13-18, are all believed to be clearly in condition for allowance.

In paragraph 4 of the Office Action, the Examiner rejected claims 8 and 11 under 35 U.S.C. §103(a) as being unpatentable over Kackman in view of Gaucher, and further in view of Simionescu et al. (U.S. Patent No. 5,963,650). The Examiner cites Simionescu et al. as suggesting that the remotes may have power saving states. However, as noted above, there does not appear to be any motivation to combine Kackman with Gaucher. Simionescu et al. do not provide any further motivation. As such, and for the reasons stated above with respect to claim 1, as well as other reasons, dependent claims 8 and 11 are also believed to be clearly in condition for allowance.

In paragraph 5 of the Office Action, the Examiner rejected claims 4 and 5 under 35 U.S.C. §103(a) as being unpatentable over Kackman in view of Gaucher. For the reasons given above with respect to claim 1, as well as other reasons, dependent claims 4 and 5 are believed to be in condition for allowance.

Also in paragraph 5 of the Office Action, the Examiner takes official notice that it is notoriously well known in the art to transmit synchronized transmission times as absolute or delay times.” However, Applicants disagree with this statement, especially in the context of the present claims and/or invention. As such, and pursuant to MPEP 2144.03, Applicants respectfully request that the Examiner provide a reference in support of this assertion.

In paragraph 6 of the Office Action, the Examiner rejected claims 19-26 under 35 U.S.C. §103(a) as being unpatentable over Kackman in view of Gaucher and further in view of Gemar (U.S. Patent No. 6,414,963). Gemar appears to suggest a traffic manager system for scheduling

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communication of data. For the reasons given above with respect to claim 1, as well as other reasons, dependent claims 19-26 are believed to be clearly in condition for allowance.

In paragraph 7 of the Office Action, the Examiner allowed claims 27-30.

In paragraph 8 of the Office Action, the Examiner indicates that the IDS statement filed November 24, 2000 is no longer on file. In response, Applicants are re-submitting herewith another copy of the November 24, 2000 IDS and copies of the relevant references.

In paragraph 9 of the Office Action, the Examiner indicates that the IDS statement filed August 27, 1999 fails to comply with 37 CFR 1.98(a)(2). In response, Applicants are re-submitting herewith another copy of the August 27, 1999 IDS and copies of the relevant references for consideration by the Examiner.

Reconsideration and reexamination are respectfully requested. In light of the above remarks, Applicants believe that all pending claims 1-30 are in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-677-9050.

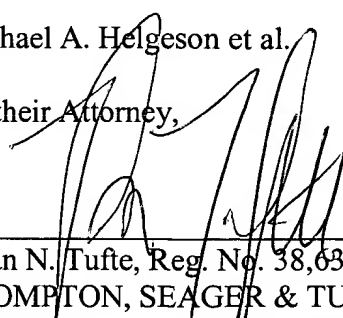
Respectfully submitted,

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By their Attorney,

Date:

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